Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A system for generating a two-dimensional spatial arrangement of a multi-dimensional cluster rendering, comprising:

a set of stored clusters from a concept space comprising a multiplicity of clusters visualizing document content in a two-dimensional visual display space based on extracted terms, each cluster in the clusters set sharing a common theme comprising shared terms; and

a placement module determining an anchor point on at least one such cluster within the clusters set, the anchor point ~~comprising~~ located on at least one open edge that is formed as a point along an edge of the at least one such cluster and on a vector defined from the center of the at least one such cluster; and

arranging the clusters in the clusters set into an arrangement of adjacent clusters originating from the anchor point at one such open edge.

2. (original): A system according to Claim 1, further comprising:

a sort module sorting the clusters in each clusters set by cluster size.

3. (original): A system according to Claim 2, wherein the clusters are sorted in order of one of increasing and decreasing cluster size.

4. (original): A system according to Claim 1, further comprising:

an alignment submodule placing the clusters along a straight vector within the cluster arrangement.

5. (original): A system according to Claim 1, further comprising:

an angle submodule defining the vector for each anchor point at a normalized angle.

6. (currently amended): A system according to Claim 5, wherein each cluster positioned at an endpoint within the cluster arrangement defines at least one further anchor point than each cluster position intermediately ~~positioned~~ between two or more endpoints within the cluster arrangement.

7. (original): A system according to Claim 5, wherein each normalized angle is at approximately 60°.

8. (original): A system according to Claim 1, further comprising:

a rendering module rendering each cluster as a circle having an independent radius.

9. (original): A system according to Claim 8, wherein each circle has a volume dependent on a number of concepts contained in the cluster.

10. (original): A system according to Claim 1, further comprising:

a rendering module rendering each cluster as a convex volume.

11. (currently amended): A system according to Claim 1, wherein the placement module determines a further anchor point located on at least one further open edge that is formed as a point along an edge of at least one further cluster within the clusters set and on a vector defined from the center of the at least one [[~~such~~]] further cluster ~~within the clusters set~~, further comprising:

a grafting submodule grafting an additional arrangement originating from the further anchor point at the one [[~~such~~]] further open edge.

12. (currently amended): A system according to Claim 1, further comprising:

a grouping submodule placing each cluster having a theme different than the common theme within the two-dimensional visual display space.

13. (original): A system according to Claim 1, wherein each convex shape represents visualized data for a virtual semantic concept space.

14. (currently amended): A method for generating a two-dimensional spatial arrangement of a multi-dimensional cluster rendering, comprising:

selecting a set of clusters from a concept space comprising a multiplicity of clusters visualizing document content in a two-dimensional visual display space based on extracted terms, each cluster in the clusters set sharing a common theme comprising shared terms;

determining an anchor point on at least one such cluster within the clusters set, the anchor point ~~comprising~~ located on at least one open edge that is formed as a point along an edge of the at least one such cluster and on a vector defined from the center of the at least one such cluster; and

arranging the clusters in the clusters set into an arrangement of adjacent clusters originating from the anchor point at one such open edge.

15. (original): A method according to Claim 14, further comprising:

sorting the clusters in each clusters set by cluster size.

16. (original): A method according to Claim 15, wherein the clusters are sorted in order of one of increasing and decreasing cluster size.

17. (original): A method according to Claim 14, further comprising:

placing the clusters along a straight vector within the cluster arrangement.

18. (original): A method according to Claim 14, further comprising:

defining the vector for each anchor point at a normalized angle.

19. (currently amended): A method according to Claim 18, wherein each cluster positioned at an endpoint within the cluster arrangement defines at least one further anchor point than each cluster position intermediately ~~positioned~~ between two or more endpoints within the cluster arrangement.

20. (original): A method according to Claim 18, wherein each normalized angle is at approximately 60°.

21. (original): A method according to Claim 14, further comprising:
rendering each cluster as a circle having an independent radius.

22. (original): A method according to Claim 21, further comprising:
calculating a volume for each circle dependent on a number of concepts contained in the cluster.

23. (original): A method according to Claim 14, further comprising:
rendering each cluster as a convex volume.

24. (currently amended): A method according to Claim 14, further comprising:
determining a further anchor point located on at least one further open edge that is formed as a point along an edge of at least one further cluster within the clusters set and on a vector defined from the center of the at least one [[~~such~~]] further cluster ~~within the clusters set~~; and
grafting an additional arrangement originating from the further anchor point at the one [[~~such~~]] further open edge.

25. (currently amended): A method according to Claim 14, further comprising:
placing each cluster having a theme different than the common theme within the two-dimensional visual display space.

26. (original): A method according to Claim 14, wherein each convex shape represents visualized data for a virtual semantic concept space.

27. (currently amended): A computer-readable storage medium ~~holding~~ storing code for causing a computer to perform ~~performing~~ the method according to Claims 14, 15, 17, 18, 21, 23, 24, 25 and 26.

28. (currently amended): A system for arranging concept clusters in thematic relationship in a two-dimensional visual display space, comprising:

a plurality of stored clusters selected from a two-dimensional visual display space representing a multi-dimensional visualization space sharing a common theme comprising at least one concept, each theme logically representing one or more concepts based on terms extracted from a document set; and

a placement module combining in order each cluster not yet grouped from the selected clusters for the shared common theme into a list of placeable clusters; and grafting each clusters list into a grouping of one or more other clusters lists at an anchor point ~~comprising~~ located on an open edge formed as a point along an edge of one such cluster in the grouping and on a vector defined from the center of the one such cluster ~~in the grouping~~, the clusters in each other clusters list sharing at least one concept represented in the shared common theme.

29. (original): A system according to Claim 28, further comprising:

a sort module sorting the clusters in each clusters list in sequence.

30. (original): A system according to Claim 29, wherein the sequence comprises a number of documents containing the one or more logically represented concepts.

31. (original): A system according to Claim 29, wherein the sequence comprises one of ascending and descending order.

32. (original): A system according to Claim 28, wherein each cluster is formed as one of a circular and non-circular convex volume.

33. (original): A system according to Claim 28, wherein the vector for each cluster is defined at normalized angles.

34. (original): A system according to Claim 28, further comprising:

a display and visualize module generating a visual display space containing the groupings of clusters lists.

35. (original): A system according to Claim 28, wherein the theme contains concepts within a pre-specified range of variance.

36. (currently amended): A method for arranging concept clusters in thematic relationship in a two-dimensional visual display space, comprising:

selecting clusters from a two-dimensional visual display space representing a multi-dimensional visualization space sharing a common theme comprising at least one concept, each theme logically representing one or more concepts based on terms extracted from a document set;

combining in order each cluster not yet grouped from the selected clusters for the shared common theme into a list of placeable clusters; and

grafting each clusters list into a grouping of one or more other clusters lists at an anchor point ~~comprising~~ located on an open edge formed as a point along an edge of one such cluster in the grouping and on a vector defined from the center of the one such cluster ~~in the grouping~~, the clusters in each other clusters list sharing at least one concept represented in the shared common theme.

37. (original): A method according to Claim 36, further comprising:

sorting the clusters in each clusters list in sequence.

38. (original): A method according to Claim 37, wherein the sequence comprises a number of documents containing the one or more logically represented concepts.

39. (original): A method according to Claim 37, wherein the sequence comprises one of ascending and descending order.

40. (original): A method according to Claim 36, further comprising:

forming each cluster as one of a circular and non-circular convex volume.

41. (original): A method according to Claim 36, further comprising:

defining the vector for each cluster at normalized angles.

42. (original): A method according to Claim 36, further comprising:
generating a visual display space containing the groupings of clusters lists.

43. (original): A method according to Claim 36, wherein the theme contains concepts within a pre-specified range of variance.

44. (currently amended): A computer-readable storage medium ~~holding~~ storing code for causing a computer to perform ~~performing~~ the method according to Claims 36, 37, 38, 39, 40, 41, 42, and 43.